# 第４講　英語長文演習④

次の英文を読んで，問に答えなさい。

Every parent knows that toddlers are strange creatures. They are changeable and contradictory, particularly when trying to interact with other people. My two-year-old daughter is no exception. One moment she is worrying about a crying baby. The next, she is taking away her friend's toy and shouting, "Mine!" When I tell her not to do something, she doesn't listen to me. Yet a new study from the University of Cambridge suggests that what I say to her today could shape her ability to reason about other people's minds for years to come.

For decades, scientists believed that *theory of mind* — the ability to reason about other people's thoughts and emotions — doesn't begin to mature until children reach the age of three or four. They came up with this age using a test called the false-belief task. The test examines whether a child can take the perspective of someone else. In one classic example, children are presented with the following story: Sally is playing with a ball. She puts it in a basket and leaves. While she's gone, Anne moves the ball from the basket to a box. The child is then asked, "When Sally returns, where will she look for the ball?"

Most two- and three-year-olds answer that Sally would look in the box because that's where they know the ball is. But by four or five, children typically say that Sally would look in the basket because that's where *she would think* the ball is. It is a simple switch from an answer based on concrete facts to one based on presumptions about someone else's knowledge or beliefs. Yet this modest development in social reasoning allows us to survive in a well-connected, social world.

*NOTE*

While children's performance on the false-belief task initially led scientists to conclude that *theory of mind* develops around age three or four, that assumption has since been overturned. Beginning in 2005, a series of clever studies using a modified version of the false-belief task found evidence of this reasoning ability in toddlers and even infants as young as ten months of age.

While children typically master the standard false-belief task around the age of four, the timing can range from three to nearly six years of age, depending on the child. Parent-child interactions seem to influence the timing of this milestone in individual children. Studies have shown that children tend to perform better on false-belief tasks when their mothers refer more often to mental states with them in conversations. Typical topics include other people's thoughts, emotions, or desires. However, the positive effect of these conversations is sometimes seen only a few years later. But is this effect just a matter of learning a few key words a little sooner or can it lead to long-lasting differences in *theory of mind*?

Rosie Ensor, Claire Hughes, and their colleagues at the University of Cambridge tackled this question by testing children over the course of eight years. They first visited the homes of two-year-olds during a family meal and recorded how often the mother and child used 'thought words' such as know, forget, understand. Further tests were given over several years. Finally, the authors studied the correlations between the resulting measures and created models to show their relationships to one another. The scientists published their results in a 2014 issue of the journal *Child Development*. They found that the more mothers used 'thought words' with their two-year-olds, the better the children performed on tests, like the false-belief task, at six years of age.

*NOTE*

Will talking to a two-year-old about others' thoughts and beliefs make a child better at social reasoning in the future? It's hard to say. These latest results are based on correlations and there is no proof that one thing causes another. Therefore, nobody can say for certain that talking to two-year-olds about others' thoughts and beliefs will make them better at social reasoning. Still, these results are curious and suggestive. Encouraging young children to think about others' beliefs and feelings may strengthen social reasoning or simply get children into the habit of considering others' thoughts in ways that persist into their middle-school years.

For now, it's clear that a toddler's understanding of other people's minds is complex and evolving. I see it every day in the actions of my daughter. But maybe, by talking about thoughts and beliefs with her today, I can prepare her and give her the tools she'll need to find her way tomorrow.

[The Benefits of Talking about Thoughts with Tots by Rebecca Schwarzlose, January 28, 2014. Reproduced with permission. Copyright © 2014 SCIENTIFIC AMERICAN, a Division of Nature America, Inc. All rights reserved.]

*NOTE*

〔1〕 本文の意味，内容にかかわる問い（A)～(D)，それぞれの答えとして，本文に従って最も適当なものを（1)～(4）から一つ選びなさい。

(A) According to the author, why do parents think that toddlers are strange creatures?

(1) Because they are creatures of habit.

(2) Because they won’t listen to parents.

(3) Because they are not easily predictable.

(4) Because they often end up becoming upset

(B) What does the false-belief task help scientists measure?

(1) Children’s physical movements.

(2) Children’s thought patterns while playing.

(3) Children’s fondness for playing with others.

(4) Children’s ability to grasp another’s viewpoint

(C) How have scientists’ beliefs about *theory of mind* changed in the last decade?

(1) They now believe that it helps people survive in society.

(2) They now know that mastery of it starts when a baby is born.

(3) They now recognize that it can be found even in ten-month-old babies.

(4) They now think that it develops much later than they previously assumed.

（D）What did the study by Ensor, Hughes, and their colleagues show about the development of children’s thoughts?

（1）Frequently doing false-belief tasks leads to worse social reasoning in children.

（2）Frequent use of thought words' by mothers may increase children's social reasoning.

（3）Frequent visitors to a child’s house are probably necessary for improving their social reasoning.

（4）Frequent encounters between children build trust and may lead to them being better at social reasoning.

〔2〕次の（1)～(5）の文の中で，本文の内容と一致するものには 1 の番号を，一致しないものには 2 の番号を，まだ本文の内容からだけではどちらとも判断しかねるものには 3 の番号を書きなさい。

（1）Prior to 2005, scientists believed that the ability to understand others' thoughts begins from age three or four.

（2）In the false-belief task, the majority of two- and three-year-olds answered that Sally would look for the ball in the basket.

（3）The false-belief task was first used with adults.

（4）The team from the University of Cambridge published their results in the journal *Child Development*.

（5）According to the author, encouraging toddlers to think of another’s thoughts or feelings will lead to better academic achievement.

〔3〕本文の内容を最もよく表しているものを（1）～（5）から一つ選びなさい。

（1）The development of thoughts

（2）The results from the false-belief tasks on children

（3）The controversy of using 'thought words' with children

（4）The effective comprehension of 'thought words' through reading tests

（5）*Theory of mind* and the development of social reasoning in young children

# 第４講　解答

＜解答＞

〔1〕（A）3　（B）4　（C）3　（D）2

〔2〕（1）1　（2）2　（3）3　（4）1　（5）3

〔3〕5

＜全訳＞

全ての親が幼児は変わった生き物だと知っている。幼児は，他人と交流しようとするときは特に，気まぐれで，矛盾している。私の 2 歳の娘も例外ではない。ある瞬間には，彼女は泣いている赤ん坊を心配しているが，次の瞬間には，彼女は友人のおもちゃを取り上げて，「私のだよ！」と叫んでいる。私が彼女に何かをしないように言っても，彼女は私の言うことを聞かない。しかし，ケンブリッジ大学の新しい研究の示すところによると，私が今日彼女に言うことによって，彼女が今後何年もの間他人の心を推測する能力を作り上げる可能性があるということだ。

何十年もの間，科学者は「心の理論」という他人の考えや感情を推測する力は，子供が 3 歳か 4 歳になるまで成熟しないと考えてきた。科学者は，誤信念課題と呼ばれるテストを使ってこの年齢を算出した。そのテストは，子供が他の人の視点で考えられるかどうかを調べるものだ。ある古典的な例に，子供が次のような話を聞かされるものがある。「サリーはボールを使って遊んでいる。彼女はそれをかごに入れて立ち去る。彼女がいない間に，アンはそのボールをかごから箱へと移す。」そして子供はこう尋ねられる。「サリーが戻ったら，彼女はボールを求めて，どこを探すだろうか。」

ほとんどの 2 歳児，3 歳児は，自分たちはボールがそこにあると知っているので，サリーは箱の中を見るだろうと答える。しかし, 4 歳や 5 歳までには, 子供はたいてい, サリーがそこにボールがあると思っているから，彼女はかごの中を見るだろうと言う。それは，具体的な事実に基づいた解答から，誰かの知識や考えに対する予測に基づいた解答への単純な切り替えだ。しかし，社会的推論におけるこのささやかな進歩のおかげで，私たちはしっかりとつながりのある社会的な世界で生きていけるのである。

誤信念課題に基づく子供たちのパフォーマンスによって，当初は科学者たちが「心の理論」は 3 歳か 4 歳ごろに発達すると結論を下していたけれども，その思い込みがその後ひっくり返されてきている。誤信念課題の修正版を使った一連の鋭い研究が 2005 年に始まり，よちよち歩きの幼児や生後 10 か月程度の幼児にさえこの推論能

力がある証拠を見つけた。

子供は，たいてい 4 歳頃に標準的な誤信念課題を習得するけれども，その時期は 3 歳からほぼ 6 歳までに及ぶ可能性があり，その子次第となる。親子のやりとりが，それぞれの子供のこの重大事が起きるタイミングに影響しているように思える。研究によってわかっているのは，母親が会話の中で子供と精神状態についてより多く話していると，誤信念課題をより上手に処理できる傾向にあるということだ。典型的な話題としては，他人の考え，感情，あるいは望んでいることなどがある。しかし，こういった会話が持つプラスの効果は，時に，数年たった後にしか見られないものもある。しかし，この影響は単にちょっと早くカギとなる語をいくつか学んでいるというだけの問題なのか，あるいはこの影響で「心の理論」に長期にわたる違いが生み出されるのだろうか。

ロジー・エンソル，クレア・ヒューズ，そして彼らのケンブリッジ大学の同僚は，8 年に渡って子供たちにテストをすることで，この問題に取り組んだ。彼らは最初に家族での食事の最中に 2 歳児の家庭を訪ねて，母親と子供が，知っている，忘れる，理解するといった「思考に関する言語」をどれほどの頻度で使用したかを記録した。さらなるテストが数年に渡って行われた。最終的に，その研究者たちは，結果生じる数量の間の相関関係を研究して，お互いに対する関係性を示すモデルを作り上げた。その科学者たちは，Child Development 誌の 2014 年号で結果を公表した。彼らは，母親が 2 歳児に「思考に関する言語」を多く使えば使うほど，それだけ子供たちの 6 歳時点での誤信念課題のような試験の成績は良くなった。

他人の思いや考えについて 2 歳児に話しかけることで，将来子供の社会的な推論能力はより高まるのだろうか。断言するのは難しい。これらの最新の結果は，相関関係に基づいており，ある物事がもう一つ別の物事の原因となっている証拠は何もない。したがって，他人の思いや考えについて 2 歳児と話すことで，彼らの社会的な推論能力がより高くなると，誰も確信を持っては言えない。それでも，これらの結果は意外であり，示唆に富んでいる。幼い子供を他人の考えや感情について考えるように促すことは，社会的な推論能力を高めるのかもしれないし，あるいは，単に子供に中学生になっても残る方法で，他人の考えを考慮する習慣を身に付けさせるものなのかもしれない。

現在明らかなのは，幼児が他人の心を理解することは複雑で，発展途上であるということだ。私は毎日娘の行動でそれを目にしている。しかし，多分今日彼女と思いや考えについて話をすることで，私は彼女に準備をさせて，明日自分のやり方を見つけるのに必要な道具を授けることはできる。

## 第４講 重要語彙リスト ＊一つ一つ何度も繰り返して，覚えてください

| | | |
|---|---|---|
| 1 | toddler | よちよち歩きの幼児 |
| 2 | creature | 生き物 |
| 3 | contradictory | 矛盾する |
| 4 | interact with | ～と交流する |
| 5 | exception | 例外 |
| 6 | decade | 十年 |
| 7 | reason | 推論する |
| 8 | mature | 成熟する |
| 9 | come up with | ～を思い付く |
| 10 | examine | 調査する |
| 11 | perspective | 見方 |
| 12 | classic | 古典的な |
| 13 | be presented with | ～を提示される |
| 14 | concrete | 具体的な |
| 15 | presumption | 仮定 |
| 16 | modest | 控えめな |
| 17 | initially | 最初に |
| 18 | conclude | 結論を下す |
| 19 | assumption | 思い込み |
| 20 | overturn | ひっくり返す |
| 21 | modify | 修正する |
| 22 | infant | 幼児 |
| 23 | master | 習得する |
| 24 | range | 及ぶ |
| 25 | milestone | 画期的事件 |
| 26 | long-lasting | 長く続く |
| 27 | over the course of | ～の間 |
| 28 | correlation | 相関関係 |
| 29 | measure | 基準 |
| 30 | relationship | 関係 |
| 31 | publish | 公表する |
| 32 | issue | 号 |
| 33 | latest | 最新の |
| 34 | proof | 証拠 |
| 35 | for certain | 確実に |
| 36 | suggestive | 示唆に富んでいる |
| 37 | strengthen | 強くする |
| 38 | persist | 存続する |
| 39 | complex | 複雑な |
| 40 | evolving | 発展途上の |

## 第４講　音読用白文　①　②　③　④　⑤　⑥　⑦　⑧　⑨　⑩

Every parent knows that toddlers are strange creatures. They are changeable and contradictory, particularly when trying to interact with other people. My two-year-old daughter is no exception. One moment she is worrying about a crying baby. The next, she is taking away her friend’s toy and shouting, “Mine!” When I tell her not to do something, she doesn’t listen to me. Yet a new study from the University of Cambridge suggests that what I say to her today could shape her ability to reason about other people’s minds for years to come.

For decades, scientists believed that *theory of mind* — the ability to reason about other people’s thoughts and emotions — doesn’t begin to mature until children reach the age of three or four. They came up with this age using a test called the false-belief task. The test examines whether a child can take the perspective of someone else. In one classic example, children are presented with the following story: Sally is playing with a ball. She puts it in a basket and leaves. While she’s gone, Anne moves the ball from the basket to a box. The child is then asked, “When Sally returns, where will she look for the ball?”

Most two- and three-year-olds answer that Sally would look in the box because that’s where they know the ball is. But by four or five, children typically say that Sally would look in the basket because that’s where she would think the ball is. It is a simple switch from an answer based on concrete facts to one based on presumptions about someone else’s knowledge or beliefs. Yet this modest development in social reasoning allows us to survive in a well-connected, social world.

While children’s performance on the false-belief task initially led scientists to conclude that *theory of mind* develops around age three or four, that assumption has since been overturned. Beginning in 2005, a series of clever studies using a modified version of the false-belief task found evidence of this reasoning ability in toddlers and even infants as young as ten months of age.

While children typically master the standard false-belief task around the

age of four, the timing can range from three to nearly six years of age, depending on the child. Parent-child interactions seem to influence the timing of this milestone in individual children. Studies have shown that children tend to perform better on false-belief tasks when their mothers refer more often to mental states with them in conversations. Typical topics include other people's thoughts, emotions, or desires. However, the positive effect of these conversations is sometimes seen only a few years later. But is this effect just a matter of learning a few key words a little sooner or can it lead to long-lasting differences in *theory of mind*?

Rosie Ensor, Claire Hughes, and their colleagues at the University of Cambridge tackled this question by testing children over the course of eight years. They first visited the homes of two-year-olds during a family meal and recorded how often the mother and child used 'thought words' such as know, forget, understand. Further tests were given over several years. Finally, the authors studied the correlations between the resulting measures and created models to show their relationships to one another. The scientists published their results in a 2014 issue of the journal *Child Development*. They found that the more mothers used 'thought words' with their two-year-olds, the better the children performed on tests, like the false-belief task, at six years of age.

Will talking to a two-year-old about others' thoughts and beliefs make a child better at social reasoning in the future? It's hard to say. These latest results are based on correlations and there is no proof that one thing causes another. Therefore, nobody can say for certain that talking to two-year-olds about others' thoughts and beliefs will make them better at social reasoning. Still, these results are curious and suggestive. Encouraging young children to think about others' beliefs and feelings may strengthen social reasoning or simply get children into the habit of considering others' thoughts in ways that persist into their middle-school years.

For now, it's clear that a toddler's understanding of other people's minds is complex and evolving. I see it every day in the actions of my daughter. But maybe, by talking about thoughts and beliefs with her today, I can prepare her and give her the tools she'll need to find her way tomorrow.